

# General Engineering

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## ENGR& 111

### Engineering Graphics 1 • 3.0 Credits

Formerly ENGR& 111, GE 101

Principles of mechanical drawing: geometric construction, orthographic projection, sectional views, auxiliary views, isometric and oblique drawings, dimensions, threads, fasteners, and lettering. \$25 science fee.

## ENGR 199

### Special Studies • 1.0–15.0 Credits

A class used to explore new coursework. \$25 science fee.

## ENGR& 214

### Statics • 5.0 Credits

Formerly ENGR& 214, GE 281

Analysis of force systems in static equilibrium. Topics include: force vectors, equilibrium of particles and rigid bodies, structural analysis, distributed forces, friction, center of gravity, moments of inertia. \$25 science fee. **Prerequisite: A grade of 2.0 or better in MATH& 151 or a grade of 0.7 or better in a higher math class, and either PHYS& 241/231 or PHYS& 221 with a grade of 2.0 or better.**

## ENGR& 215

### Dynamics • 5.0 Credits

Formerly ENGR& 215, GE 291

Analysis of motion of particles and rigid bodies. Topics include: kinematics of particles and rigid bodies, kinetics of particles and rigid bodies, Newton's laws, work and energy, impulse, and momentum. \$25 science fee. **Prerequisite: Completion of ENGR& 214 with a 2.0 or better.**

## ENGR& 224

### Fundamentals of Thermodynamics [RE] • 5.0 Credits

A calculus-based engineering class concerning heat and heat transfer. This course covers the thermodynamic properties of matter, ideal and real gases, work and heat, and the laws of thermodynamics and their applications. \$25 science fee. **Prerequisite: Completion of PHYS& 223 with a 2.0 or higher.**

## ENGR& 225

### Mechanics of Materials [RE] • 5.0 Credits

A calculus-based engineering class concerning the mechanics of deformable bodies. This course covers the concepts of stress, strain, axial loads, torsion and bending, properties of materials and combined stress. \$25 science fee. **Prerequisite: Completion of ENGR& 214 with a 2.0 or higher.**

## ENGR 299

### Special Studies • 1.0–15.0 Credits

A class used to explore new coursework. \$25 science fee.